

# Envision Eugene

## Revised Housing Recommendation

March 2015

### Planning for Housing

The recommendation for accommodating our 20 year need for housing is based on the following key factors:

Adopted Population Forecast	We are expecting nearly 34,000 new people.
Number of New Homes	We are planning for approximately 15,105 new homes.
Demographic/Economic Trends	The recommendation takes into account the anticipated demographics (such as age) and economics (such as average wages) of our community.
Housing Mix	We are planning for new housing to be 55% single family and 45% multi-family.
Housing Capacity	The number of homes we can reasonably expect inside our current urban growth boundary on vacant and partially vacant lands and through new measures to create additional capacity, while still maintaining the high quality of life we enjoy.

### Recommendation

Based on the best available information and analysis, we have discovered that the number of single family homes that can fit inside the current urban growth boundary exceeds our 20 year need. We previously determined that all multi-family housing can fit inside the current urban growth boundary through additional efforts to increase redevelopment. As a result, the revised recommendation includes **no urban growth boundary expansion for housing**.

To efficiently accommodate Eugene's future need for single family homes inside the existing UGB, and to implement the best outcomes of the community vision as a whole, the recommendation also includes:

- **Providing for services** such as wastewater to enable development of land currently planned for single family homes. We are working to ensure that plans are in place so these areas can get the needed infrastructure to enable single family development.
- **Resolving current, transportation-related limitations** on development capacity through the in-progress update to our local Transportation System Plan.
- **Planning for the development of nearly 200 acres of land recently re-designated** for single-family homes.
- **Establishing an ongoing monitoring program** to track the progress of our density assumptions, land consumption, housing mix, and other key indicators of development capacity, allowing us to periodically evaluate our progress, and make adjustments as necessary.
- **Initiating urban reserves planning** for longer term growth once the city receives a new population forecast.



## Background

One of the primary goals of the Envision Eugene project is to determine how Eugene will accommodate the next 20 years of growth in our community as required by state law. One of the requirements of state law is for the city to prepare a buildable lands inventory. The buildable land inventory identifies the supply of buildable lands within that city's UGB. The city is also required to prepare a "housing needs analysis" to estimate the demand for housing, including number of new homes its population will need over a 20-year planning period, and the capacity (the number of homes that can likely be accommodated) on the buildable lands inventory. By comparing the buildable lands inventory's capacity to the needs analysis, the city can determine whether it has enough land to accommodate its needs.

Based on the results of this analysis, in December 2014, staff provided a recommendation for a modest urban growth boundary expansion in the Bailey Hill/Gimpl Hill and the Bloomberg/McVay areas to accommodate approximately 530 single family homes. This represented about 6 percent of the 20 year single family housing need, with the remaining 94 percent to occur in the current UGB on the buildable lands inventory and through measures to more efficiently use land within the current UGB.

## What Changed?

Following the December 2014 recommendation, new information was received regarding the amount of capacity assumed for sloped land (land over 5 percent slope) in the buildable lands inventory. In response, the concerns were vetted and analyzed by staff and the Envision Eugene Technical Resource Group (TRG). The TRG agreed that the sloped land capacity assumption was misapplied and vetted the results of the correction. As part of that review, they also analyzed a range of density (number of homes per unit of land) assumption options for sloped land. This analysis helped form the revisions to the capacity analysis for sloped land, which are summarized below:



- 1. Application of Capacity Assumption:** It was determined that the capacity assumption on sloped land was misapplied and should have been applied to a larger base of land. This error was corrected.
- 2. Lots above 900 Feet Elevation:** In recognition of recent development activity on land above 900 feet in elevation (which is limited by policy language in the South Hills Study), the capacity assumption was changed from 1 home per lot to 2.5 homes per acre for vacant lots over one acre in size and for partially vacant lots between one and five acres in size.
- 3. Small Vacant Lots:** Evidence was presented showing that for the number of small vacant lots in the supply (those less than one acre in size and below 900 feet in elevation) more capacity should be assumed by using the number of lots rather than by applying an average density to the aggregate acres of the lots. The capacity assumption was changed from 2.5 homes per acre to 1 home per lot for those vacant lots with at least 4,500 square feet in area (minimum residential lot size). No capacity is assumed on vacant lots less than 4,500 square feet or on lots that are fully protected from development.

These relatively small changes result in a cumulative capacity increase of about 720 homes. As the previously estimated deficit of single family homes was just over 530 homes (or about 6 percent of our total single family need), we have determined there is sufficient capacity for single family homes inside Eugene's current UGB, thus eliminating the need to expand the UGB for single-family residential at this time. Based on the new information and recent analysis, staff concur that these adjustments are reasonable and necessary to more accurately reflect the City's 20-year capacity for single family homes. With all other parts of the residential lands capacity analysis not discussed here staying the same (such as estimates for baseline redevelopment, capacity deductions for non-residential uses on residential land), the result is a surplus of capacity inside the current urban growth boundary for about 188 dwellings.

Concerns have been raised regarding this result. Specifically that the market realities will not result in the densities and capacity assumed for sloped land, in part because the remaining land supply is different from what has developed. The remaining supply at any given point will be different than the supply that has developed in the past at least to some degree, making it difficult to estimate future development capacity. Further, the state land use regulations for this type of analysis require that the assumed densities be based on residential development that has actually occurred. The buildable lands analysis addresses these issues more specifically as follows:

- Density assumptions were updated in 2013 to include more recent development and are now based on development from 2001-2012 rather than 2001-2008
- Density assumptions generally respond to the size and slope of the land
- The density method and assumption are different for sloped land compared to flat land to reflect the complexities of developing this type of land (e.g. slopes, natural resources, open space requirements)
- Specific south hills policies were used to inform sloped land density assumptions

Additionally, as we move forward, monitoring development trends, including densities and the land supply will be key to informing future decision making.

### For More Information

Technical background materials can be viewed here: <http://www.eugene-or.gov/index.aspx?nid=2429>

Comprehensive information on Envision Eugene may be found at <http://www.envisioneugene.org>







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## Envision Eugene

# Residential Land Supply & Capacity

March, 2015

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## 1. Background

State law requires cities to prepare a Buildable Lands Inventory (BLI). A city's BLI identifies the supply of buildable lands within that city's UGB. Cities are also required to prepare a "housing needs analysis." A city's housing needs analysis estimates the number of new homes its population will need over a 20-year planning period and informs the projected number of homes that can be accommodated on the city's buildable lands under that city's land use code. By comparing the capacity of the BLI's capacity to the needs analysis, the city can determine whether it has enough land to accommodate its needs.

The land supply and capacity analysis is complex, reflecting not only the different characteristics of the supply but also responding to the challenge of trying to estimate the amount of development that is going to occur on the remaining land supply in the future. As a result, the land supply and capacity analysis has gone through several iterations beginning with a comprehensive review of the land supply and capacity analysis during the 2010 Eugene Comprehensive Lands Assessment through the Envision Eugene technical review and analysis that resulted in the December 2014 urban growth boundary expansion recommendation. After the December 2014 recommendation, new information was received regarding the following concerns about the single-family (Low Density Residential or LDR land) capacity analysis:

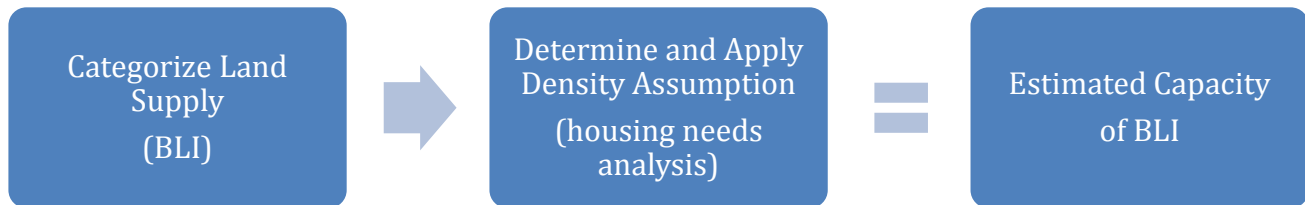
- that the capacity assumption on sloped land was misapplied and should have been applied to a larger base of land,
- that based on recent development more capacity should be assumed on land above 900 feet elevation, and
- that based on the number of small lots in the supply more capacity should be assumed by using the number of lots rather than by applying an average density to the aggregate acres.

In response to these concerns, staff and the Technical Resource Group (TRG) vetted the issues raised. The TRG reviewed how the capacity assumption on sloped land was misapplied, agreed that the sloped capacity assumption was misapplied, and vetted the results of the correction. The TRG also analyzed development patterns above 900 feet elevation and reviewed the lot sizes and acres of the small lot portion of the land supply. As a result of this analysis, the TRG considered and analyzed a range of density assumption options for sloped land. Their analysis helped form the now recommended revisions to the residential land supply and capacity analysis.

The following summarizes key components of the buildable land supply, the recommended residential capacity methodology, and corresponding changes to the capacity estimates.

## 2. Land Supply & Capacity Analysis Overview

The general steps used for determining the supply and capacity of vacant and partially vacant (larger lots with some room for development) land are as follows:



### Categorize Land Supply (BLI)

The first step in the land supply and analysis is to prepare the city's BLI. This begins with categorizing the land in the urban growth boundary as either vacant or developed. Then, if applicable, the lands are further categorized as protected (subject to natural resource protections or have slopes greater than 30%) or committed (such as in public ownership).

Next, the portion of the land supply potentially available for development (vacant and partially vacant land) is further divided up by the following characteristics:

- *Plan Designation:* This is based on the land use designation of the site from the Eugene-Springfield Metropolitan Area General Plan (Metro Plan) land use diagram. For residential, the categories are Low Density Residential (LDR), Medium Density Residential (MDR) and High Density Residential (HDR).
- *Site Size:* The site size classes are less than 1 acre, 1 to 5 acres or 5 or more acres.
- *Slope:* The categories are "flat" land of less than 5% slope or "sloped" land of at/above 5% slope land.
- *Elevation:* The categories are below or above 900 feet in elevation.

One of the components reviewed by the TRG regarding the issues raised was above was a new rerun of the residential portion of the buildable lands supply. In order to correct the misapplication of the density assumption, the land supply was rerun to identify the additional acres that were inadvertently left out of the land supply. In rerunning the supply analysis for this revised analysis, a GIS error was found that about 49 net acres of LDR flat land (vacant and partially vacant) and 11 acres of Medium Density Residential (MDR) vacant land had been double counted<sup>1</sup>. That also has now been corrected. As a result of the GIS correction, the capacity of low density residential (LDR) flat land was reduced by -182 dwellings and the capacity of medium density residential land (MDR) was reduced by -118 dwellings. This increased the amount of multi-family land needed to be accommodated by redevelopment investments from 1,464 to 1,582 dwellings.

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<sup>1</sup> The main error was a data abnormality that caused some very small sliver portions of land that are not tax lots to be double-counted. These lands are not buildable lands with potential capacity. In addition, a small error of 2 acres was identified where 2 ac of the supply had been manually deducted from the supply twice instead of only once. The result of these corrections is a net decrease in vacant acres of 49 in LDR and 11 in MDR.

### Determine and Apply Density Assumption (Housing Needs Analysis)

The next steps in the land supply and capacity analysis are to determine a density assumption (the number of housing units per unit of land) and to apply the assumption to the applicable land supply. In the analysis, three types of density assumption applications are used, as shown in Table 1.

The density assumptions were derived from different methods reflecting the differences in the type of land in the supply as well as the different regulations that impact development. The assumptions are applied depending on the land supply's size, slope and elevation, and in some cases, depending on if the land is vacant and partially vacant. The density assumptions applied in each case are provided in *Recommended Residential Land Density Assumption Table* [link document here]. No changes are proposed to the densities used in the analysis, but rather the methodology in which they are applied. This is because the concerns raised are not with the density assumptions themselves but rather which categories of land they apply to. Table 1 on the following page describes how the density assumption was derived and applied for each category of land, and any revisions or changes based on the recent re-run of the analysis.



**Table 1 Key Changes In Low Density Residential Land Capacity Analysis**

Land Category	Original Capacity Assumptions	Change & Rationale	Result
<b>LDR “flat land” below 900 feet in elevation all lot sizes</b>  <b>&amp;</b> <b>All MDR and HDR land</b>	<p><b>Method:</b> An average number of dwelling units is assumed per <u>buildable</u> acre of land</p> <p><i>Description:</i> Where this method is used, the land supply consists of the vacant or partially vacant land that is not otherwise protected or above 30% slope. It is the buildable<sup>2</sup> portion of the land supply.</p> <p>The density assumption, which is derived from calculating the average number of residential lots and their acres that developed between 2001 and 2012 (which is the development look-back period for Envision Eugene), is then applied to only the <u>buildable</u> acres of land.</p>	<p><i>Method:</i> No change proposed.</p> <p><i>Rationale:</i> Based on additional analysis of the method and lots used for developing the flat land density assumption, staff and TRG confirmed that it is correct to apply this density assumption to only the buildable acres where this density assumption is used and no changes to the capacity analysis are needed.</p>	No change.
<b>LDR “sloped land” below 900 feet 1-5 acres 5+ acres</b>	<p><b>Method:</b> An average number of dwelling units is assumed per <u>buildable</u> acres of land</p> <p><i>Description:</i> For this method, the supply was originally, considered to be only the buildable acres of the land supply.</p> <p>The density assumption is based on calculating the average number of buildable lots compared to the total plat acres for all subdivisions in the south hills region approved since</p>	<p><b>Method:</b> An average number of dwelling units is assumed per <u>total</u><sup>3</sup> acres of land.</p> <p><i>Description:</i> For this method, the supply is changed to be the <u>total</u> acres in the land supply, not just the buildable acres.</p> <p>There is no change proposed to how the density assumption is calculated.</p> <p><i>Rationale:</i> Further analysis of how the density</p>	<p>Correcting the misapplication of the capacity analysis on sloped vacant and partially vacant land in this category increased the LDR capacity by +149 acres or +370 dwellings.</p> <p>Correcting the misapplication of the capacity analysis on sloped land also increased the LDR capacity gained through re-designation by +14 dwellings (from 631 to 645 dwellings).</p>

<sup>2</sup> The buildable portion of the land supply is all the land that remains in the city’s land supply after removing land that is committed, protected, above 30% slope, or fully developed.

<sup>3</sup> Total acres means all the acres except committed acres (e.g. buildable, protected, or over 30% slope)

Land Category	Original Capacity Assumptions	Change & Rationale	Result
	<p>the adoption of the 2001 land use code, and was then applied to only the buildable acres in the supply.</p> <p>The purpose of this density assumption method, which was a change from the flat land density method, is to better reflect the physical constraints and regulatory requirements (such as, protected streams and wetlands, tree preservation, topography) common in the south hills region. This is because there are a variety of ways to address natural resources on a development site (such as on both buildable and common area lots), their impact on the overall density of a development might not have been represented accurately through the density method that is derived only from the buildable acres.</p>	<p>assumption was developed found that because the total acres in the subdivision plats were used to determine an average number of buildable lots to assume, the resulting density assumption is an average over the total land supply, not just the buildable land. Therefore, since the density assumption already reflects that there will be some protected or severely sloped land, there is no need to take that type of land out of the supply. Therefore the correct application of this type of density assumption is to apply the average number of dwellings to the total acres in the land supply where this assumption is being applied.</p> <p>This does not mean development is anticipated to occur on the lands that are protected and/or above 30% slope, rather it is simply recognizing that the average density assumption was based on the total acres of a development site, not just on the buildable acres.</p>	
<b>LDR land and...</b>	<p><i>Method:</i> Density was applied either as an average number of dwelling units assumed per buildable acres of land or according to the number of lots in the supply.</p>	<p><b>Method: Density is applied according to the number of lots in the each of the supply categories where this assumption is applied.</b></p> <p><i>Rationale:</i> There are three reasons this density assumption is used:</p>	Where the density assumption for vacant and partially vacant land in this category changed to one dwelling per lot, the LDR capacity increased by an additional +516 dwellings
<b>sloped below 900 feet smaller</b>		(proposed change from assuming dwellings per acre to assuming one	



Land Category	Original Capacity Assumptions	Change & Rationale	Result
<p><b>than 1 acre</b></p>	<p><i>Method:</i> Originally, an average number of dwelling units was assumed per buildable acres of land.</p>	<p>dwelling per lot:)</p> <p>1. For the small lot size category (lots less than one acre), further analysis shows that the number of lots in this category is more than the number of estimated capacity when applying an average density to the aggregate acres, and yet presumably most of these lots could develop with a home. However, it is acknowledged that this supply category also includes lots that are unlikely to build; really small “sliver” tax lots (e.g. only hundreds of square feet) as well as larger lots that may have unbuildable configurations or characteristics. Given this analysis, it is reasonable to assume one dwelling per lot for lots meeting a minimum lot size.</p>	<p>Therefore, one dwelling is assumed per vacant or partially vacant lot in this category except, to avoid over counting capacity on potential sliver lots while also recognizing that some larger lots may be unbuildable, the minimum lot size threshold of 4,500 square feet (minimum lot size in R-1 Low Density Residential zone) was used as a proxy for a buildable lot size. No capacity is attributed to lots less than 4,500 square feet or to fully protected/+30% sloped lots.</p>
<p><b>flat or sloped above 900 feet smaller than 1 acre</b></p>	<p><i>Method:</i> Density is applied according to the number of lots.</p>	<p>(no change proposed; continue to assume one dwelling per lot)</p> <p>2. Policy language in the <i>South Hills Study</i> limits development on vacant land above 901 feet in elevation to one dwelling per existing lot, or more through an approved planned unit development. Further analysis shows that in recent development more than one dwelling per vacant lot is occurring above 900 feet. However, since 1990 only three planned unit developments (PUD) have been approved less than 5</p>	<p>Therefore, one dwelling per vacant lot is assumed for lots in this category except, to avoid over counting capacity on potential sliver lots while also recognizing that some larger lots may be unbuildable, the minimum lot size threshold of 4,500 square feet was used as a proxy for a buildable lot size. No capacity was attributed to lots less than 4,500 square feet or to fully protected/+30% sloped lots.</p>

Land Category	Original Capacity Assumptions	Change & Rationale	Result
		acres in size, likely due in part to the relatively high cost of a PUD. Given this information, it is reasonable to assume that sites less than 1 acre are unlikely to go through a PUD.	
<b>sloped above 900 feet 1-5 acres (partially vacant only)</b>	<i>Method:</i> Density is applied according to the number of lots.	<p>(no change proposed for Partially Vacant 1-5 acres; continue to assume one dwelling per lot)</p> <p>3. The land use code requires PUD approval for any additional housing above 900 feet elevation (except for vacant land which can have 1 house). For medium sized partially vacant lots (1-5 acres), given the historical lack of PUDs on small lots, PUD costs, and that partially vacant lots are already developed with a home, it is reasonable to assume that the smaller partially vacant lots in this category are unlikely to go through a PUD but that the larger lots in this category may.</p>	<p>Therefore, one dwelling per lot is applied to the total number of partially vacant lots in this category, but in this case the resulting capacity represents the average to occur throughout this entire category of land and does not represent an assumption that one dwelling will occur on each lot.</p>

### Estimated Capacity of the BLI

The December 2014 recommendation estimated an LDR deficit of just over 530 homes, which resulted in the need for a modest urban growth boundary expansion. The changes described in Table 1 result in a cumulative increase to the LDR capacity of about 720 dwellings. With all other parts of the residential lands capacity analysis not discussed this memorandum staying the same as in the December 2014 recommendation (e.g. baseline redevelopment, deductions for non-residential uses on residential land), the result is a surplus of LDR capacity for about 188 LDR dwellings.

Concerns have been raised regarding this result. Specifically that the market realities will not result in the densities and capacity assumed for sloped land, in part because the remaining supply is different from what has developed. The remaining supply at any given point will be different than the supply that has developed in the past at least to some degree, making it difficult to estimate future development capacity. Further, the state land use regulations for this type of analysis require that the assumed future densities be based on residential development that has actually occurred. The land capacity analysis has tried to address concerns about the future capacity of sloped land by incorporating more recent development trends and using densities that recognize future challenges with building in the south hills region. Some of these issues more specifically as follows:

- Density assumptions were updated in 2013 to include more recent development and are now based on development from 2001-2012 rather than 2001-2008
- Density assumptions generally respond to the size and slope of the land
- The density method and assumption are different for sloped land compared to flat land to reflect the complexities of developing this type of land (e.g. slopes, natural resources, open space requirements)
- Specific south hills policies were used to inform sloped land densities

Additionally, monitoring development trends, including densities and the land supply will be key as we move forward. Eugene is proposing to establish a monitoring program because while Eugene's new comprehensive growth plan is based on well-founded assumptions about what will happen in the future, not all of the assumptions will be correct and the plan needs to be flexible enough to address changing conditions and needs in the community. The purpose of a monitoring program is to provide the information needed by the community and decision makers to periodically assess the validity of growth planning assumptions and inform the effectiveness of strategies adopted as part of the new comprehensive plan and urban growth boundary (UGB). With this information, decision makers can determine whether the growth plan and/or related implementation activities need to be adjusted

### **3. Attachments**

- A. South Hills Subdivision List (2001-2014)
- B. Density & Land Supply Rationale Matrix
- C. Recommended Residential Land Density Assumption Table

### South Hills Region Subdivision List (2001-2014)

This list includes all subdivisions within the South Hills Study boundary that were approved since 2001 through 2014. The exception is that any subdivisions approved during this period but that were following an earlier land use application approval which was approved prior to the 2001 land use code was excluded from inclusion in this analysis. Based on the list below, the total number of buildable lots approved over the total amount of acres in the applicable subdivision plats resulted in an average of 2.5 dwellings per acre (when including all phases of Timberline Hill PUD). This 2.5 density assumption is used for the Low Density Residential land supply categories of:

- Vacant & Partially Vacant “sloped land”, below 900 feet, 1-5 acres or 5+ acres
- Vacant “flat land”, above 900 feet, 1-5 acres
- Vacant & Partially Vacant “flat land”, above 900 feet, 5+ acres
- Vacant “sloped land”, above 900 feet, 1-5 acres
- Vacant & Partially Vacant “sloped land”, above 900 feet, 5+ acres

### Slope land (South Hills) Density Analysis

3/31/10 (*date of original analysis*)

1/22/15 (*date of updates, updates in red italic text*)

PLATNAME	DATERECORDED	AC	Lots	DU/Ac	PUD Y/N
AERIE PARK	11/22/2006	19.5	29	1.5	Y
AMAZON HEIGHTS	7/31/2007	1.1	5	4.6	
BROOKSIDE ( <i>removed; approved pre-2001 code</i> )					
CHERRY HILL ESTATES ( <i>removed; below 500' so not in South Hills Study</i> )					
CREST MEADOWS PUD	4/17/2008	3.7	15	4.1	Y
FOX PINES CLUSTER	6/25/2008	2.4	8	3.4	
HENDRICKS RIDGE	5/10/2005	2.6	13	5.1	
MCKAY SUBDIVISION	4/20/2006	3.3	7	2.1	
MONTECITO PINES	4/15/2005	1.9	8	4.2	
MOON MOUNTAIN	9/17/2007	42.6	102	2.4	Y
PLEASANT VIEW	8/27/2009	0.8	4	5.0	
SPRING KNOLL PUD PH 4	11/3/2006	12.9	29	2.2	Y
SPRINGBROOK	5/4/2009	2.3	7	3.0	
TIMBERLINE HILL PUD PH 1	9/10/2007	17.7	39	2.2	Y
WHITBECK KNOLL	2/25/2004	0.8	4	4.8	
TIMBERLINE HILL P.U.D. PH 2 ( <i>added, excludes remainder acreage</i> )	3/2/2012	22.4	55	2.5	Y
Guiteau Plat, 1st Addition ( <i>added</i> )	3/13/2007	2.0	6	3.0	
Lorane Cluster Subdivision ( <i>added</i> )	6/12/2007	0.6	5	7.8	
ANALYSIS with only the platted Timberline Hill acreage		136.48	336	2.46	
ANALYSIS without platted Timberline Hill		96.42	242.00	2.51	
TIMBERLINE HILL PUD (final PUD approval all phases; total minimum)		99.87	251	2.51	Y
ANALYSIS with entire Timberline Hill final PUD approval		196.29	493	2.51	

Note: Includes all approved final subdivisions that were:

approved between 2001-2014

approved under the 2001 land use code

were not based on another land use application approved under the pre-2001 land use code

were within the south hills study boundary

### Density & Land Supply Rationale Matrix for Low Density Residential Land

The first table shows the now recommended density assumptions for LDR sloped land and LDR land above 900 feet elevation (changes shown in red text). The second table is a summary of the rationale for the density assumptions and how they are applied.

### Vacant & Partially Vacant Land Supply Capacity Method & Rationale

The assumptions and methods apply to both Vacant & Partially Vacant land except where noted

2.24.15

#### Recommended

#### Gross Density Assumptions (calculated assumption)

Lot Size Class	LDR							
	<5% Slope		>5% Slope		>5% Slope		>5% Slope	
	Acres Below 900'	Lots Below 900'	Acres Above 900'	Lots Above 900'	Acres Below 900'	Lots Below 900'	Acres Above 900'	Lots Above 900'
<1 ac	5.2			1.0		1.0		1.0
1-5 ac	4.6		2.5		2.5		2.5	
5+ ac	4.0		2.5		2.5		2.5	

\*Density assumptions of 1 is 1 du/lot.

\*Assumptions in red are assumptions that differ from the 10/9/14 Eugene Land Model spreadsheet

### Density Assumption Rationale

Flat land (<5% slope) below 900' is not included because the assumptions have not changed.

Lot Size Class		Assumption du (dwelling)	Land	Rationale
<b>&gt;5% Slope Below 900'</b>				
Vacant	<1 Ac	1 du/lot	Number of lots between 4,500 sqft <sup>1</sup> and 1 ac	<ul style="list-style-type: none"> <li>- The number of lots in this category is more than the capacity when using the aggregate acres. Presumably most of these lots could develop with a home therefore 1 du/lot is assumed.</li> <li>- To avoid over counting capacity on potential sliver lots and in recognition that some larger lots may not be buildable either, the minimum lot size threshold of 4,500 sqft was used as a proxy for a buildable lot size.</li> <li>- No capacity was attributed to fully protected/+30% lots.</li> </ul>

<sup>1</sup> Square feet



	<b>1-5 Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.
	<b>5+ Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.
Partially Vacant	<b>&lt;1 Ac</b>	n/a	n/a	- Developed lots less than 1 ac are considered part of the redevelopment potential (not partially vacant) and an annual redevelopment rate is applied.
	<b>1-5 Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.
	<b>5+ Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.
<b>&lt;5% Slope Above 900'</b>				
Vacant	<b>&lt;1 Ac</b>	1 du/lot	number of lots	<p>- The South Hills Policy indicates on vacant land above 901' elevation, 1 du per existing lot is allowed or more through a planned unit development.</p> <p>- Since 1990, there have been only three PUDs approved less than 5 acres in size. Given this history and the cost of a PUD, it is reasonable to assume PUDs will not occur on sites less than 1 acre.</p> <p>- To avoid over counting capacity on potential sliver lots and in recognition that some larger lots may not be buildable either, the minimum lot size threshold of 4,500 sqft was used as a proxy for a buildable lot size.</p> <p>- No capacity was attributed to fully protected/+30% lots.</p>

	<b>1-5 Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	<ul style="list-style-type: none"> <li>- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.</li> <li>- Recent platting above 900' elevation shows more than 1 du/lot occurring above 900' therefore the 2.5 du/ac applied to sloped areas below 900' is also applied here.</li> </ul>
	<b>5+ Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	<ul style="list-style-type: none"> <li>- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.</li> <li>- Recent platting above 900' elevation shows more than 1 du/lot occurring above 900' therefore the 2.5 du/ac applied to sloped areas below 900' is also applied here.</li> </ul>
Partially Vacant	<b>&lt;1 Ac</b>	n/a		<ul style="list-style-type: none"> <li>- Developed lots less than 1 ac are considered part of the redevelopment potential (not partially vacant) and an annual redevelopment rate is applied.</li> </ul>
	<b>1-5 Ac</b>	1 du/lot	number of lots	<ul style="list-style-type: none"> <li>- The PUD applicability criteria require a PUD for any additional housing above 900' elevation (except for vacant land which can have 1 house).</li> <li>- Since 1990, there have been only three PUDs approved less than 5 acres in size.</li> <li>- Given this history and PUD costs, it is unlikely the smaller lots in this category will go through a PUD but that the larger lots in this category will.</li> <li>- 1 du/lot represents the average to occur throughout this entire category of land given PUD history and costs, and does not represent an assumption that 1 du will occur on each lot.</li> </ul>
	<b>5+ Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	<ul style="list-style-type: none"> <li>- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.</li> <li>- Recent platting above 900' elevation shows more than 1 du/lot occurring above</li> </ul>

				900' therefore the 2.5 du/ac applied to sloped areas below 900' is also applied here.
<b>&gt;5% Slope Above 900'</b>				
Vacant	<b>&lt;1 Ac</b>	1 du/lot	number of lots between 4,500 sqft and 1 ac	<ul style="list-style-type: none"> <li>- The South Hills Policy indicates on vacant land above 901' elevation, 1 du per existing lot is allowed or more through a planned unit development.</li> <li>- Since 1990, there have been only three PUDs approved less than 5 acres in size.</li> <li>- Additionally, the number of lots in this category is more than the capacity when using the aggregate acres. Presumably most of these lots could develop with a home.</li> <li>- Given the PUD history and cost, the allowance for one dwelling and that the lots are already in tax lots, 1 du/lot is assumed.</li> <li>- To avoid over counting capacity on potential sliver lots and in recognition that some larger lots may not be buildable either, the minimum lot size threshold of 4,500 sqft was used as a proxy for a buildable lot size.</li> <li>- No capacity was attributed to fully protected/+30% lots.</li> </ul>
	<b>1-5 Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	<ul style="list-style-type: none"> <li>- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.</li> <li>- Recent platting above 900' elevation shows more than 1 du/lot occurring above 900' therefore the 2.5 du/ac applied to sloped areas below 900' is also applied here.</li> </ul>

	<b>5+ Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	<ul style="list-style-type: none"> <li>- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.</li> <li>- Recent platting above 900' elevation shows more than 1 du/lot occurring above 900' therefore the 2.5 du/ac applied to sloped areas below 900' is also applied here.</li> </ul>
Partially Vacant	<b>&lt;1 Ac</b>	n/a	n/a	<ul style="list-style-type: none"> <li>- Developed lots less than 1 ac are considered part of the redevelopment potential (not partially vacant) and an annual redevelopment rate is applied.</li> </ul>
	<b>1-5 Ac</b>	1 du/lot	number of lots	<ul style="list-style-type: none"> <li>- The PUD applicability criteria require a PUD for any additional housing above 900' elevation (except for vacant land which can have 1 house).</li> <li>- Since 1990, there have been only three PUDs approved less than 5 acres in size and PUDs are expensive.</li> <li>- While it is unlikely the smaller lots in this category will go through a PUD, the larger lots in this category may.</li> <li>- 1 du/lot represents the average, not an assumption that 1 du will occur on each lot.</li> </ul>
	<b>5+ Ac</b>	2.5 du/ac	buildable plus protected/+30% slope acreage	<ul style="list-style-type: none"> <li>- The density assumption is based on south hills approved subdivisions from 2001-2014 and is derived from the total acres of the subdivision plat so it is applied to the total acres of land supply.</li> <li>- Recent platting above 900' elevation shows more than 1 du/lot occurring above 900' therefore the 2.5 du/ac applied to sloped areas below 900' is also applied here.</li> </ul>

### Recommended Residential Land Density Assumption Table

The following tables show how the recommended density assumptions have changed (shown in red) from the density assumptions used in the December 2014 Urban Growth Boundary Recommendation.

Recommended changes to assumptions (shown in red):

#### Gross Density Assumptions (calculated assumption)

Plan Designation	LDR								MDR/HDR	
	<5% Slope				>5% Slope				Acres	
	Acres Below 900'	Lots Below 900'	Acres Above 900'	Lots Above 900'	Acres Below 900'	Lots Below 900'	Acres Above 900'	Lots Above 900'	<5%	5% to 30%
<b>&lt;1 ac</b>										
Low Density Residential	5.2			1.0		1.0			NA	NA
Medium Density Residential	NA	NA	NA	NA	NA	NA	NA	NA	13.4	12.5
High Density Residential	NA	NA	NA	NA	NA	NA	NA	NA	32.6	32.6
<b>1-5 ac</b>										
Low Density Residential	4.6		2.5		2.5		2.5		NA	NA
Medium Density Residential	NA	NA	NA	NA	NA	NA	NA	NA	11.5	10.7
High Density Residential	NA	NA	NA	NA	NA	NA	NA	NA	24.8	24.8
<b>5+ ac</b>										
Low Density Residential	4.0		2.5		2.5		2.5		NA	NA
Medium Density Residential	NA	NA	NA	NA	NA	NA	NA	NA	10.7	10.0
High Density Residential	NA	NA	NA	NA	NA	NA	NA	NA	21.5	21.5

Assumptions used in December 2014 Urban Growth Boundary Recommendation:

#### Gross Density Assumptions (calculated assumption)

Plan Designation	LDR, MDR, HDR	LDR		MDR/HDR	
		Below 900'	Above 900'		
	<5%	5% to 30%	5% to 30%	5% to 30%	>30% (unbuildable)

#### <1 ac

Low Density Residential	5.2	2.5	1.0	NA	NA
Medium Density Residential	13.4	NA	NA	12.5	NA
High Density Residential	32.6	NA	NA	32.6	NA
<b>1-5 ac</b>					
Low Density Residential	4.6	2.5	1.0	NA	NA
Medium Density Residential	11.5	NA	NA	10.7	NA
High Density Residential	24.8	NA	NA	24.8	NA
<b>5+ ac</b>					
Low Density Residential	4.0	2.5	1.0	NA	NA
Medium Density Residential	10.7	NA	NA	10.0	NA
High Density Residential	21.5	NA	NA	21.5	NA